

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A substantially pure mutant interleukin-7 (IL-7) polypeptide comprising an amino acid sequence that is identical to: (a) a wild type, human IL-7 amino acid sequence (SEQ ID NO:1), except [[that]] for a mutation at position 143 of SEQ ID NO:1 one or more amino acid residues in the carboxy terminal helix D region is mutant or (b) a wild type, non-human IL-7 amino acid sequence that has a mutation at the position corresponding to position 143 of SEQ ID NO:1.
2. (Canceled)
3. (Currently amended) The polypeptide of claim 2 claim 1, wherein the mutation comprises a deletion of one or more of the amino acids corresponding to positions 136-144 the amino acid at position 143 of SEQ ID NO:1 or from a corresponding region of an IL-7 polypeptide from a non-human species or, where the polypeptide comprises a non-human IL-7 amino acid sequence, the mutation comprises a deletion of an amino acid at the position corresponding to position 143 of SEQ ID NO:1.
4. (Currently amended) The polypeptide of claim 2 claim 1, wherein the mutation comprises an addition of one or more amino acids corresponding to positions 136-144 an amino acid at position 143 of SEQ ID NO:1 or to a corresponding region of an IL-7 polypeptide from a non-human species or, where the polypeptide comprises a non-human IL-7 amino acid sequence, the mutation comprises an addition of an amino acid at the position corresponding to position 143 of SEQ ID NO:1.

5. (Currently amended) The polypeptide of ~~claim 2~~ claim 1, wherein the mutation comprises a substitution of ~~one or more of the amino acids corresponding to positions 136-144~~ ~~the amino acid at position 143~~ of SEQ ID NO:1 ~~or in a corresponding region to the same position of an IL-7 polypeptide from a non-human species or, where the polypeptide comprises a non-human IL-7 amino acid sequence, the mutation comprises a substitution of an amino acid at the position corresponding to position 143 of SEQ ID NO:1~~.

6. (Original) The polypeptide of claim 5, wherein the substitution comprises a non-conservative substitution.

7. (Original) The polypeptide of claim 5, wherein the substitution comprises substituting a non-aromatic amino acid in place of an aromatic amino acid.

8. (Canceled)

9. (Currently amended) The polypeptide of ~~claim 8~~ claim 5, wherein the mutation comprises a substitution of the amino acid at position 143 of SEQ ID NO:1 or the amino acid corresponding to position 143 of SEQ ID NO:1 with alanine or proline.

10. (Currently amended) The polypeptide of ~~claim 8~~ claim 5, wherein the mutation comprises a substitution of the amino acid at position 143 of SEQ ID NO:1 or the amino acid corresponding to position 143 of SEQ ID NO:1 with histidine or tyrosine.

11. (Original) The polypeptide of claim 5, wherein the substitution comprises a conservative substitution.

12-30. (Canceled)

31. (Original) The polypeptide of claim 1, wherein the polypeptide effectively competes with wild type IL-7 for binding to a cell surface receptor.

32. (Original) The polypeptide of claim 1, wherein the polypeptide further comprises a heterologous sequence.

33. (Original) The polypeptide of claim 32, wherein the heterologous sequence comprises a sequence that increases the circulating half-life of the IL-7 portion of the polypeptide.

34. (New) The polypeptide of claim 1, wherein the polypeptide is substantially pure.

35. (New) The polypeptide of claim 1, wherein the polypeptide comprises an amino acid sequence that is identical to SEQ ID NO:1 except for a mutation at position 143 of SEQ ID NO:1.

36. (New) The polypeptide of claim 1, wherein the polypeptide consists of an amino acid sequence that is identical to SEQ ID NO:1 except for a mutation at position 143 of SEQ ID NO:1.